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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,455	12/26/2001	Takayoshi Oyamada	0649-0814P	2939
2292	7590	08/09/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			CHEA, THORL	
			ART UNIT	PAPER NUMBER
			1752	
DATE MAILED: 08/09/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

122

Office Action Summary	Application No. 10/025,455	Applicant(s) OYAMADA ET AL.	
	Examiner Thorl Chea	Art Unit 1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 6-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 6-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

12

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 6-11 are rejected under 35 U.S.C. 103(a) as obvious over the combination of EP1004930 (EP'930), Matsumoto et al (US Patent No. 5,958,668) and Hayashi et al (US Patent No. 4,273,723). The EP'930 discloses a photothermographic material containing non-photosensitive organic silver salt grain similar to that of the claimed invention. The grain having aspect ratio (AR) of at least 3; the average of the average grain diameter of 0.01 to 0.8 μm ; the average of the needle ratio of said grain measure from the principal plane direction (Needle ratio = $(\text{MxLNG})/(\text{WIDTH})$) is not less than 1.1 and less than 10 (page 3, and page 4). On page 5, paragraph [0052 to 0053], the silver behenate, silver arachidate, and/or silver stearate are preferred organic silver salt. Matsumoto in column 17 lines 10-15 discloses "silver behenate is the most preferred in terms of whiteness and light stability. Silver behenate also has excellent moisture resistance, and can be used in combination with a reducing agent having a relatively weak reducing ability". Hayashi et al in column 6, Example 1 the purity of silver behenate product as extremely high as 98.1 %.

It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to would have selected silver benehenate having grains structure within the scope taught in EP'930 to provide the non-photosensitive organic silver salt grains claimed in the

Art Unit: 1752

present claimed invention. The worker of ordinary skill in the art would have selected the silver behenate of because of its excellent moisture resistance and the its having a relatively weak reducing ability recognized in Matsumoto with the high purity known in Hayashi et al and the non-photosensitive organic silver salt having grains structure taught in EP'930 provides photothermographic material with high sensitivity, reduced image defects as well as low fog.

The limitation of claims 6-8 are related to the claiming of a material by a process. "(E)ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same or obvious from a product of prior art, the claim is unpatentable even though the prior art product was made by different process." In re Thorpe 777 F.2d 695, 698, 227 USPQ 694, 966 (Fed. Cir. 1985).

1. Claims 1, 6-11 are rejected under 35 U.S.C. 103(a) as obvious over the combination of EP0962812 (EP'812), Matsumoto et al (US Patent No. 5,958,668), and Hayashi et al (US Patent No. 4,273,723).

EP'812 discloses a heat-developable material containing having fatty acid silver salt particle having the average equivalent-sphere diameter from 0.1 to 0.8 μm ; the average ratio of long sides/short sides in main planes of 1 to 4; the aspect ratio of 2 to 30. The preferred aliphatic carboxylic acids include cerotic acid, lignoceric acid, behenic acid, erucic acid, arachidic acid, stearic acid,camphoric acid and mixture thereof. See page 5, paragraph [0035]. The preparation of silver behenate is shown on page 25-26, especially Table 2. The material having one or more layer is shown on page 21, paragraph [0187]. Matsumoto in column 17 lines 10-15 discloses that "silver behenate is the most preferred in terms of whiteness and light stability.

Art Unit: 1752

Silver behenate also has excellent moisture resistance, and can be used in combination with a reducing agent having a relatively weak reducing ability". Hayashi et al in column 6, Example 1-2 discloses the purity of silver behenate product as extremely high as 98.1 %.

It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to would have selected silver behenate having grains structure within the scope taught in EP'812 to provide the non-photosensitive organic silver salt grains claimed in the present claimed invention. The worker of ordinary skill in the art would have selected the silver behenate having high purity taught in Hayashi et al because of its excellent moisture resistance and the its having a relatively weak reducing ability recognized in Matsumoto and the non-photosensitive organic silver salt having grains structure taught in EP'812 provides photothermographic material with high sensitivity, reduced image defects as well as low fog.

The limitation of claims 6-8 is related to the claiming of a material by a process. "(E)ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same or obvious from a product of prior art, the claim is unpatentable even though the prior art product was made by different process." In re Thorpe 777 F.2d 695, 698, 227 USPQ 694, 966 (Fed. Cir. 1985).

Response to Arguments

3. Applicant's arguments filed May 17, 2005 have been fully considered but they are not persuasive because of the reason set forth in the rejection above.

It has been known in the prior art of record such as Matsumoto et al (US Patent No. 5,958,668) that "silver behenate is the most preferred in terms of whiteness and light stability.

Art Unit: 1752

Silver behenate also has excellent moisture resistance, and can be used in combination with a reducing agent having a relatively weak reducing ability, and known in Hayashi et al (US Patent No. 4,273,723) to produce silver behenate having high purity as extremely high as 98.1 %, and 99.3 %. The worker of ordinary skill in the art at the time the invention was made would have formed silver salt of an organic crystal including silver most preferred behenate having high purity taught in Hayabashi et al, and thereby provide the invention as claimed. The silver behenate in Hayabashi in column 6, Example 1 contains no silver stearate which is within meaning of substantially no silver stearate claimed or silver arachidate content of 6 mol % or less per mole of non-photosensitive organic silver salt within the scope claimed in the present claimed invention. The behenic acid, stearic acid, and arachic acid belong to known aliphatic acid (fatty acid) known to be used in the production of silver behenate, silver stearate and silver arachidate, and it has been known in Matsumoto that the silver behenate is the most preferred one because of its improved property such as shown above, and it would have been understood by the worker of ordinary skill in the art that the use of the silver behenate in combination with other groups such as silver stearate and silver arachidate would be undesirable.

The Declaration under 37 CFR 1.132 on May 17, 2005 fails to overcome the established prima facie case of obviousness set forth above. First, the Declaration fails to compare the claimed material to the closest material of the applied prior art of record, namely EP0962812 (EP'812), samples on Table A on page 35 wherein the non-photosensitive silver salts grains have dimensions within the range of the claimed invention and prepared from the behenic (Trade name: C22-85R). Second, it would have been expected by the worker of ordinary skill in the art that the non-photosensitive silver salts grains of a fatty acid with lower carbon content such as

Art Unit: 1752

silver stearate (18C) and silver arachidate (20) would be less desirable than the silver behenate (22C). The silver behenate is the most preferred in the photothermographic art such as taught in Matsumoto et al and Hayashi et al. Third, the change in percentage shown the Declaration would have expected from the material of the prior art of record such as EP'812 wherein good results in image keeping quality, forced aging fog and sensitivity characteristic. See EP'812 page 38. Fourth, the results shown in the Declaration is not commensurate with the scope of the claimed invention. See the scope of the claims which encompasses non-photosensitive organic silver grains that has substantially no silver stearate; a length/width ratio of 1-9; an aspect ratio 1.1 to 30; an equivalence sphere diameter of 0.05 to 1 micron; and a content of silver behenate that is 97 to 100 mol % per mol of the non-photosensitive organic silver salt in comparison with the scope of the Declaration which shows only a single percentage of silver behenate and a dimension within the claimed range. The Declaration fails to show the criticality of the claimed dimension of the non-photosensitive organic silver salt grains within the range claimed, and the amount of the silver behenate within the range as claimed. It is improper to use of a single mole % (98 mol %) value and a single value of the dimension of the grain to determine the results of within the scope of the claimed invention. The applicants offer no basis in technical reasoning and/or objective evidence to support the conclusion that the demonstrated results can be extrapolated to non-photosensitive organic silver salt grains encompassed by the scope of the claimed invention. Therefore, the probative value of the evidence is not commensurate with the degree of protection sought. In re Kulling, 897 F.2d 1147, 14 USPQ2d 1056 (Fed. Cir. 1990); In re Grasselli, 713 F.2d 731, 218 USPQ 769 (Fed. Cir. 1983); In re Landgraf, 436 F.2d 1046, 168 USPQ 595 (CCPA 1971). "Moreover, for a showing of "unexpected results" to be probative

Art Unit: 1752

evidence of nonobviousness, the applicant has the burden of establishing that the differences in results between the examples compared are of practical significance and would have been unexpected to one skilled in the art. In re D'Ancicco, 439 F. 2d 1244; 169 USPQ 303 (CCPA 1971); In re Klosak, 455 F. 2d 1077, 173 USPQ 14 (CCPA 1972); In re Juillard, 476 F. 2d 1380, 177 USPQ 570 (CCPA 1973). There are no non-photosensitive silver salt of an organic acid having the size outside the scope of the claimed invention presented in the Declaration. Therefore, the criticality of the inventive dimension within the claimed range cannot be determined.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

Art Unit: 1752

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H. Kelly can be reached on (571)272-1526. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1700.

Tchea *tin*
August 3, 2005

Thorl Chea
Thorl Chea
Primary Examiner
Art Unit 1752